

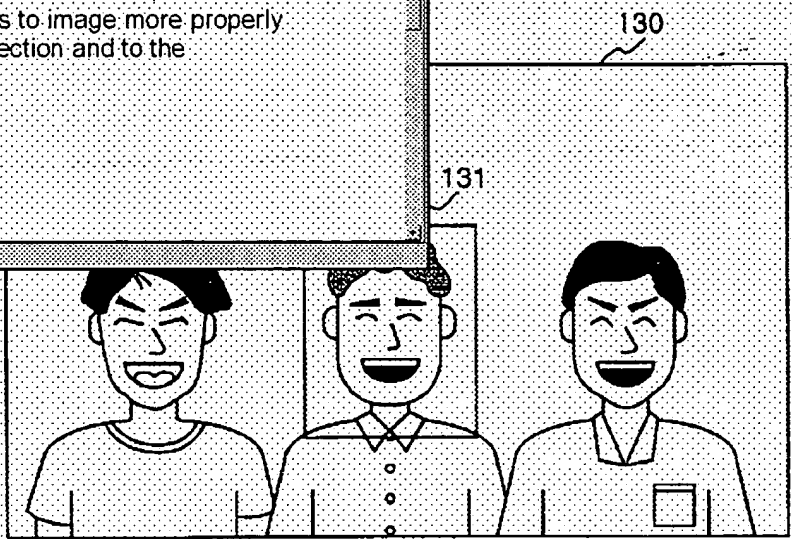
----- KWIC -----

Current US Classification, US Primary Class/Subclass - CCPR (1)
348/333.03

Summary of Invention Paragraph - BSTX (25)

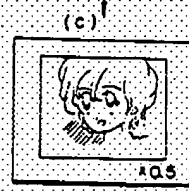
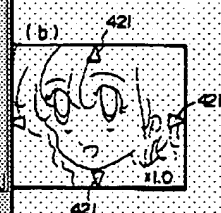
[0023] Furthermore, when an object to be picked up in the maximum imaging visual field is previously picked up and displayed in the first frame, an operator can select a portion which he or she intends to image more properly and can control the camera in the corresponding direction and to the corresponding zoom value.

FIG. 11



	U	Document	Issue D
1		US 200111 CAMER/	
		2001004063 15	GRAPHI
		6 A1	
2		US 200108 Image se	
		2001001390 16	compute
		2 A1	
3		US 200108 Image se	
		2001001056 02	
		1 A1	
4		US 6191819 200102 Picture-t	
		B1 20	means

To achieve the above second object, a size display system for an electronic still camera according to the present invention comprises image sensing system means for converting an image of an object focused on an image sensor through a lens system into an image signal; lens and iris control means for obtaining in-focus information, zoom information, distance information and iris information about the object image focused on said image sensor; NRZ writing means for making conversion into an NRZ signal; a recording medium having a special region where a signal other than said image signal of the object is stored by being recorded with an NRZ recording technique; an NRZ reading circuit for making inverse conversion of the NRZ signal; select means for selecting whether size display is to be made or not; a scale display circuit for generating a scale pattern and numerical values for graduations; and control means having a function of calculating size display data based on said in-focus information, zoom information, distance information and iris information, causing said in-focus information, zoom information, distance information and iris information or said size display data to be NRZ-converted by said NRZ writing means and recorded in the special region of said recording medium in photographing, and causing the contents of the special region of said recording medium to be read out and demodulated into the original signal format



	U	Document	Issue	D
3		US 2001001056 02	200108	Image sc
	r	1 A1		
4		US 6191819 200102	200102	Picture-t
	c	B1	20	means
5		US 5331419 199407	199407	Size disp
	r	A	19	
6		US 5557328 199609	199609	Video ca
	r	A	17	

Claims Text - CLTX (11):

indicator means for visually indicating a partial area of the image displayed by said display panel which corresponds to the magnified image to be recorded when the selected magnification rate exceeds the second maximum magnification rate of said second zoom-up means, wherein the entire image displayed on said display panel corresponds to the image to be recorded when the second maximum magnification rate of said second zoom-up means is not less than the selected magnification rate.

Claims Text - CLTX (13):

3. A video camera as claimed in claim 2, wherein said liquid crystal device of said indicator means provides a line forming a frame surrounding the partial area of the image displayed by said display panel which corresponds to the image to be recorded, the frame being variable in size according to the selected magnification rate when the selected magnification rate exceeds the second maximum magnification rate of said second zoom-up means.

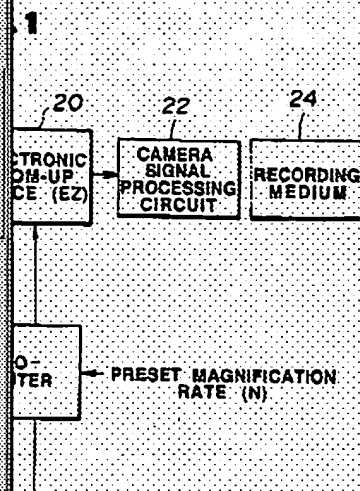


FIG. 2

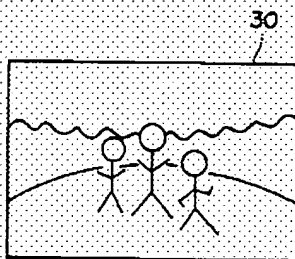
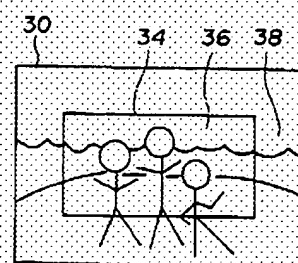


FIG. 3



U	Document	Issue D
4	US 6191819	200102
	B1	20
5	US 5331419	199407
	A	19
6	US 5557328	199609
	A	17

A video display control system according to another inventive arrangement comprises a video display having a first format display ratio. A picture height circuit determines an active video picture height from an input video signal having a second format display ratio. A detector circuit identifies letterbox formats responsive to the active video picture height in the video signal and determines a format display ratio of the letterbox picture. A zoom control circuit is operable in a first mode of operation for enlarging the picture in size to fill the display substantially entirely, notwithstanding consequent cropping of the picture, and operable in a second mode of operation for enlarging the picture in size to substantially fill the display vertically, notwithstanding consequent unused portions of the display. A vertical pan control circuit automatically centers the picture in both modes of operation. The detector can identify the format display ratio of the letterbox format picture. A circuit responsive to the identified format display ratio controls image aspect ratio distortion of the enlarged picture. A deflection system is controllable in vertical size by a variable vertical scan rate, in horizontal size by variable horizontal video expansion and compression, and in pan position by varying the vertical reset in phase.

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FIG. 1(b)

U Document Issue D	
1	US 5309234 199405 Adaptive A 03
2	US 200210 Automati 2002014968 17 1 A1
3	US 200306 Camera 2003010315 05 6 A1
4	US 6559888 200305 Digital ca B1 06 digital zo

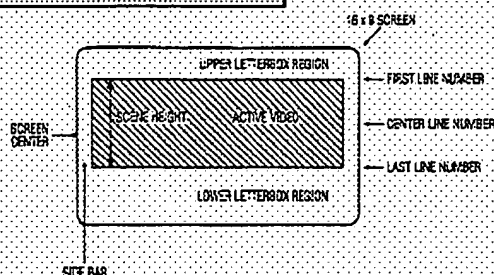


FIG. 1(d)

Detailed Description Text - DETX (23):

Digital zooming is another form of zooming that is only available in a digital camera. Digital zooming is effected by a series of steps that include:

1. converting light via a charged coupled device 15 into an electrical analog signal that is indicative of the captured image;
2. converting the analog signal into a digital signal that is also indicative of the captured image;
3. coupling the digital signal to internal microprocessor 25 for storage;
4. processing zooming commands initiated by the activation of zooming switches, such as a zoom in switch 30 and a zoom out switch 32;
5. sending a digital zoom command to the charged coupled device 15; and
6. converting the digital command into an analog signal via a digital to analog converter 58 that causes the charged couple device 15 to crop the image capture area so that only a subset of the image pixels are stored in an available storage or recording medium, such as on a removable memory card 54 or in an internal memory storage device 84 as illustrated in FIG. 1.

effect respective zoom in
ns in both an optical zoom
oom mode of operation. A
ds to the zoom in switch to
n factor by one incremental
om factor is not equal to a
of about D_n to facilitate
a next incremental optical
next incremental optical
individual optical digital
l digital zoom factor range
zoom factor product of
tical digital zoom factor
om control arrangement
l switch when the current
o a minimum digital zoom
a minimum optical zoom
mental setting to facilitate
a next lower optical digital

	U	Document	Issue D
2		US 2002014968	200210 Automati
		1 A1	17
3		US 2003010315	200306 Camera
		6 A1	05
4		US 6559888	200305 Digital ca
		B1	06 digital zo
5		US 5978016	199911 Electroni
		A	02

zoom factor setting.

17 Claims, 8 Drawing Sheets

Optical + 2X Digital Zoom

Optical + 1.5X Digital Zoom

The computer operator can perform a variety of image processing functions on digital images downloaded from the camera. For example, image processing software can be utilized in the host computer 232 to perform zoom, pan and crop functions on any portion of a displayed image, attach special borders for special occasions, and print the edited images on a printer. Image data generated by the host computer 232 can be transferred back to the camera to update the image information files of film mode images stored in the base camera memory 126 or of hybrid mode and digital mode images contained in a memory card coupled to the interface connector 130. In addition, data generated by the host computer can be transferred to the camera for writing on the magnetic layer of the photographic film by the magnetic head 108. Accordingly, a computer operator can generate photo-finishing data on the host computer 232 and transfer the photo-finishing data directly to the photographic film in the camera, such that when the film is presented to a photo-finisher, the data can be retrieved from the photographic film and utilized in a photo-finishing operation. Still further, album images contained in the host computer 232 can be transferred to the camera for storage in the album image storage section 125 of the base camera memory 126.

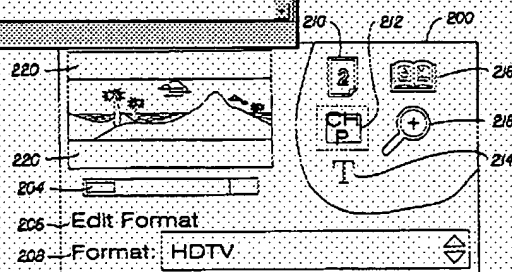
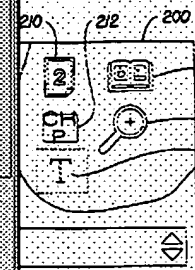


FIG. 12

	U	Document	Issue D	
3		US	200306	Camera
	U	2003010315	05	
		6 A1		
4		US 6559888	200305	Digital ca
	U	B1	06	digital zo
5		US 5978016	199911	Electron
	U	A	02	
6		US	200210	Electron
	U	2002015898	31	image

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focal length enabling zoom ratios for lens 12 of approximately 1X, 1.25X or 1.5X. While the longer of the two focal lengths for digital lens 22 is selected to enable a zoom ratio of approximately 1.75X for digital lens 22, when film lens 12 is at its focal length enabling zoom ratios for lens 12 of approximately 1.75X or 2X. When lens 12 and 22 are substantially equally zoomed, i.e., both at approximately 1X or 1.75X, the 360.times.640 pixels stored in memory at step 82 approximately match the image captured on film 14 in terms of content and proportion, and all the pixels in the stored digital image can be used for later processing. However, when lens 12 and 22 are substantially unequally zoomed, i.e., the zoom ratio of film lens 12 is substantially greater than the digital lens 22, only a central window within the 360.times.640 pixels stored matches the image captured on film 14 in terms of content and proportion. Accordingly, digital images 84, 85 and 86 are cropped by microcontroller 34 to a central window of pixels 88, 89 and 90, respectively, and only this central window of pixel is used for later processing. The amount of cropping in the stored image depends on the difference between the zoom ratios of lens 12 and 22 when the image was captured, such that more is cropped if lens 12 is at 1.5X, than at 1.25X or 2X.

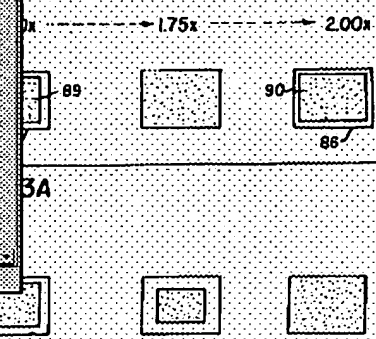


FIG. 38

	U	Document	Issue	D
12	US 5262864	199311	Frame b	
	A	16		
13	US 5845166	199812	Hybrid c	
	A	01	electroni	
14	US 5822625	199810	Hybrid e	
	A	13		
15	US	200302	Intelliger	
	2003002581	06		

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Detailed Description Text - DETX (15)
Alternately, instead of using the default parameters for configurations 0 and 1 as shown in Table 2, the user can chose preferred parameter values using the user interface screens shown in FIG. 3, which appear on the computer monitor 16 when the user interface is enabled. More specifically, the user clicks on a "camera adjustments" icon 60 on a basic screen 62 in order to pull down a camera adjustments screen 64. By then clicking on an "advanced camera settings" icon 66, an advanced camera settings screen 68 is obtained, and so on through as many additional screens 70 as are needed. The computer would take the user settings and translate them into the appropriate configuration settings for the camera, e.g., the zoom setting would be translated into the crop windows. In this manner, the camera configurations may be customized for the specific application.

Current US Original Classification - CCOR (1)
348/731.6

DetailsTextImageHTMLKVVIC

	Current OR	Current XRef
18	348/96	348/51, 348/79, 356/236
19	348/231.6	348/552
20	348/169	348/164
21	396/128	348/229.1, 396/429

DetailsTextImageHTMLFull

Advanced Camera Settings

Contrast
Brightness
Size 640H480
Automatic
Exposure Setting Zoom Normal
Adjustments Color Grey Scale

68

Helper info here...

Hide Camera
Advanced Con
Exp
O A
M
Low
Satur
Light Source
Auto White Balan
Daylight
Office (Flouresce
Home (Incandesc
Help